AMENDMENTS TO THE CLAIMS

Please amend and add the following claims to read as follows:

Claims 1- 38 (cancelled)

39. (New) An in vivo imaging system comprising:

an imager to receive a plurality of input data corresponding to an image;

a transmitter to transmit a selection of said input data;

a receiver to receive said selection of input data; and

a processor to interpolate reconstructed data based on said selection of input data.

40. (New) The in vivo imaging system of claim 39, wherein said imager is to produce said selection of said input data.

41. (New) The in vivo imaging system of claim 39, comprising a display for viewing a display image corresponding to said selection of input data and said reconstructed data.

42. (New) The in vivo imaging system of claim 39 wherein the imager and the transmitter are included in a swallowable capsule.

43. (New) A system for reconstructing an image, the system comprising:

a controller to:

receive selected image data from an in-vivo device;

pre-process the selected image data; and

interpolate the selected image data to produce reconstructed image data, so that the reconstructed image data includes more data than selected image data.

44. (New) The system of claim 43, wherein the controller interpolates by a method selected from a group including: linear interpolation, quadratic interpolation, bicubic interpolation, polynomial interpolation, and weighted average interpolation.

interpolation, polynomial interpolation, and weighted average interpolation.

45. (New) The system of claim 43, wherein the controller is to produce additional image data resulting in a reconstructed image.

46. (New) The system of claim 43 wherein the controller is to post process the interpolated image data.

47. (New) The system of claim 46, wherein the controller is to post process by a method selected from a group including: image sharpening, color suppression, intensity adjustment, convolution and applying a median filter.

48. (New) The system of claim 43, wherein the controller is to pre-process by a method selected from a group including applying error correction code, reducing noise, gradient evaluation, and detecting edges.

49. (New) The system of claim 43, wherein the controller is to generate reconstructed data based on said selected image data.

50. (New) The system of claim 43 wherein the controller is to receive the selected image data from a swallowable capsule.